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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,185	12/05/2001	Colin D. Nayler	95-525	3474
20736	7590	09/26/2005	[REDACTED]	EXAMINER
MANELLI DENISON & SELTER			TORRES, JUAN A	
2000 M STREET NW SUITE 700				
WASHINGTON, DC 20036-3307			[REDACTED]	ART UNIT
				PAPER NUMBER
			2631	

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

**Application No.**

10/002,185

**Applicant(s)**

NAYLER, COLIN D.

**Examiner**

Juan A. Torres

Art Unit

2631

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 September 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
  - a)  The period for reply expires 3 months from the mailing date of the final rejection.
  - b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2.  The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
  - (a)  They raise new issues that would require further consideration and/or search (see NOTE below);
  - (b)  They raise the issue of new matter (see NOTE below);
  - (c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: \_\_\_\_\_.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.
12.  Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_
13.  Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Response to Arguments***

Applicant's arguments filed on 09/14/2005 have been fully considered but they are not persuasive.

This respond to arguments is focused exclusively in the claims, no in the specification. If something in the specification is so important that makes an Application unique it should be claimed; if it is not claimed it will not be addressed by the Examiner.

Regarding claims 1 and 6:

The Applicant contends:

"As stressed during the interview, the claims do not specify a Decision Feedback Equalizer that includes both a feedforward equalizer and a feedback equalizer. Rather, the claims specify a feedforward equalizer, and selectively changing the supplied equalizer settings, until the equalizer signal samples reach the prescribed equalization threshold.

Hence, the Examiner's characterization of Applicant's invention as a conventional Decision Feedback Equalizer based on Fig. 1 of the specification is improper because the specification explicitly specifies at page 5, line 28 to page 6, line 13 that the feedback equalizer 26 is disabled during initialization, and that the receiver controller relies solely on the feedforward equalizer 28 and the equalizer controller 30 for initial equalization of the retrieved signal samples to a prescribed equalization threshold representing stable, equalized signal samples', the receiver controller 32 can thereafter

enable the LMS algorithm using the feedback equalizer in combination with the feedforward equalizer."

The Examiner disagrees and asserts, that, as indicated in the previous Office action, the Examiner never uses a DFE to reject the claims. The examiner uses a single equalizer to reject the claims. The reason, as indicated by the Applicant's representative is that the feedback equalizer is disabled.

If in a DFE the feedback equalizer is disabled, the DFE is no longer a DFE, it is only an equalizer.

Any equalizer that has an input (the signal to be equalized) and an output (the equalized signal) that is in the feedforward path of the signal is inherently a feedforward equalizer. This is the case of the equalizer in the reference used to reject the claims.

Whatever that the equalizer of the reference is called "equalizer" or "feedforward equalizer", "adapted filter", or "forward filter", doesn't make the claim patentability different because the device performs the same function.

During the personal interview, this is the only point that from the Applicant's representative point of view was not disclosed in the reference.

The Applicant contends:

"Further, the Examiner's reliance of the feedback equalizer 26 of Figure 1 disregards the explicit claim language specifying a digital feedforward equalizer in combination with selectively changing the supplied equalizer settings until the equalized signal samples reach the prescribed equalization threshold. The prescribed equalization threshold represents "stable, equalized signal samples" such that the signal samples

are equalized "to a sufficient equalized level to ensure that the slicer 22 can output reliable data" (page 6, lines 9-12) (see page 7, lines 25-33 and page 8, lines 20-27 for an exemplary implementation of the prescribed equalization threshold 66).

The Examiner disagrees and asserts, that, as indicated in the previous Office action, the equalizer 26 of Figure 1 is a feedforward equalizer that has an input (with the signal to be equalized) and an output (with the equalized signal).

The Applicant contends:

"Hence, "claims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their 'broadest reasonable interpretation.'" MPEP 2111.01 at 2100-37 (Rev. 1, Feb. 2000) (quoting *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983) (emphasis in original)). In this case, the claimed feedforward equalizer cannot be so broadly construed as to encompass the entire Decision Feedback Equalizer 20 of Fig. 1 that includes the feedback equalizer 26 (especially because it is disabled during initialization) and the feedforward equalizer 28. Such an interpretation would be inconsistent with the interpretation that those skilled in the art would reach, and hence would be unreasonable. Cf. *In re Cortright*, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

The Examiner disagrees and asserts, that, as indicated in the previous Office action, the equalizer 26 of Figure 1 is a feedforward equalizer that has an input (with the signal to be equalized) and an output (with the equalized signal).

The Applicant contends:

"The use of a digital feedforward equalizer, plus the selective changing of the supplied equalizer settings until the equalized signal samples reach the prescribed equalization threshold, is neither disclosed nor suggested in the applied prior art.

Lo describes an equalization technique that relies on a closed loop system using a phase locked loop (PLQ to create a feedback system: Lo explicitly describes that detecting a cable via an "open loop" means "there is no feedback as to whether or not the equalizer setting selected by the cable length detector is the optimal equalizer setting to use to minimize jitter" (col. 2, lines 13-17)."

The Examiner disagrees and asserts, that, as indicated in the previous Office action, Lo discloses a method in a physical layer transceiver coupled to a prescribed network medium having an undetermined length, the method comprising supplying a prescribed initial set of equalizer settings to a digital feedforward equalizer, the digital feedforward equalizer configured for outputting equalized signal samples based on equalizing received signal samples, having encountered inter-symbol interference by transmission via the prescribed network medium, according to supplied equalizer settings (figure 1 column 2 lines 45-47); comparing the equalized signal samples relative to a prescribed equalization threshold (figure 2 column 6 lines 1-4); and selectively changing the supplied equalizer settings, based on the comparing step, until the equalized signal samples reach the prescribed equalization threshold (column 7 lines 30-31). The equalizer 26 of Figure 1 is a feedforward equalizer that has an input (with the signal to be equalized) and an output (with the equalized signal).

This point has been review by four Senior Patent Examiners and all of them support the Examiner position.

For these reasons and the reason stated in the previous Office action, the rejection of claims 1 and 6 are maintained.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Juan Alberto Torres  
09-22-2005

  
KEVIN BURD  
PRIMARY EXAMINER